

5 devices, the destination of each reassembled data frame in the MAC queue being associated with
6 the MAC device.

1 Claim 32 (currently amended): The ~~data communication network~~ switch fabric of claim 31,
2 wherein each of the output ports transmits a signal to each of the crossbar sections indicating an
3 ability to receive data cells from data links coupling each of the output ports to each of the
4 crossbar sections.

1 Claim 33 (currently amended): The ~~data communication network~~ switch fabric of claim 23,
2 wherein for each of the output ports, each of the crossbar sections transmits a signal to each of
3 the input ports indicating the ability of each of the crossbar sections to receive the data cells of
4 the data frames ~~having~~ specifying a destination associated with each of the an output ports.

REMARKS

In accordance with 37 C.F.R. § 1.114, Applicants have submitted a Request for Continued Examination (RCE) of the above-referenced patent application. By the amendments and remarks provided herein, Applicants have addressed all outstanding issues presented in the Final Office Action dated **December 22, 2003** (hereafter, the Action), in which: claims 1-33 are rejected under 35 USC § 103(a) as being unpatentable over Charny et al. (US 6,072,772, hereinafter "Charny") in view of Cloonan et al. (US 5,724,352, hereinafter "Cloonan") and Momirov (US 6,484,209, hereinafter "Momirov").

Current Status of Claims:

Claims 1-3 and 5-33 remain in the application. Claim 4 has been canceled. Applicants offer to amend claims 1-3 and 5-33 as above, to particularly claim that which Applicants consider to be the invention.

Rejection of Claims:

In paragraph 3 of the Action, claims 1-8, 11-19, 21 & 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Charny in view of Cloonan. In addition, in paragraph 4 and 5 of the Action, claims 9, 10, and 23-33 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Charny in view of Cloonan and further in view of Momirov. The rejection of claims 1-11 and 23-33 on the above stated grounds is respectfully traversed.

Claim 1, as currently amended, states:

A switching fabric for transmitting data frames to destinations, each data frame specifying a destination, the switching fabric comprising:
a plurality of input ports...; and
a plurality of crossbar sections...,
wherein each input port includes logic for scheduling the transmission of each data cell... to any output port, based upon an ability of a crossbar section to receive the data cells destined for a given output port.

Emphasis added.

As is well-established, to support a *prima facie* rejection of obviousness under 35 USC § 103(a), the prior art reference (or references when combined) must disclose or suggest all the claim limitations. See MPEP 2143. In this case, as developed more fully below, Applicants respectfully submit that this burden has not been met.

Charny discloses a rate controller (30) (scheduler s_{q(i)}) located in the input channel that ensures the aggregate of all flows between an input and an output meet a guaranteed flow rate. See column 7, lines 3-5. Rate controller (30) then sends queue address pointers to arbiter (32) based on meeting that guaranteed flow rate. See column 7, lines 8-9. Arbiter (32), located in the crossbar unit (24), then has the "responsibility to determine which of the input channels should be able to transmit a cell to particular output channels." See column 7, lines 10-18.

Applicants respectfully submit that Charny fails to disclose each input port including logic for scheduling the transmission of each data cell... to any output port based upon an ability of a crossbar section to receive the data cells destined for a given output port. Rather Charny teaches away from logic at the input port when Charny teaches of an arbiter located in the crossbar unit for deciding which input can send a cell to which output. Accordingly, Applicants respectfully submit that Charny fails to disclose the above stated element of claim 1.

The Cloonan reference is cited in the Action to address the acknowledged lack of an expressly disclosed crossbar switch with multiple crossbar sections. See Action, page 3. Cloonan, therefore fails to cure the deficiencies of Charny as noted above. Furthermore, Cloonan does not disclose or suggest separate logic associated with each of the input ports as provided in claim 1. Rather, Cloonan discloses logic in the cross bar coupled to the pipes in the switch fabric to control routing of content from the input ports. See Figures 3-5.

Indeed, Cloonan fails to disclose or suggest scheduling of input content to the individual pipes at all. Instead, all content from each input port is non-selectively routed to each pipe, where centralized control logic in the switch controls the pipes to determine which pipe forwards individual content (Fig. 5 and col. 10, lines 35-45).

For at least the foregoing reasons, it is respectfully requested that the Examiner withdraw rejection of claim 1.

Independent claims 12 and 23 both include a similar element to claim 1. In particular, claim 12 contains the element of scheduling at an input port the transmission of each data cell... based upon an ability of a crossbar section to receive each data cell destined for a given output port. Claim 23 also recites a similar element to claim 12. Accordingly, claims 12 and 23 are patentable over the cited references for the same reasons as those presented for claim 1. Therefore, Applicants respectfully request that the Examiner withdraw rejection of claims 12 and 23.

Additionally, in relation to the Action's reference to Momirov in rejecting claim 23, Applicants respectfully submit that Momirov does not cure the deficiencies in Charny and Cloonan stated above. Therefore, for at least the foregoing reasons, it is respectfully requested that the Examiner withdraw rejection of claim 23.

Applicants note that claims 2-11, 13-22 and 24-33 depend from patentable base claims 1, 12 and 23 respectively. As a result, in addition to any independent bases for patentability, Applicants respectfully submit that claims 2-11, 13-22 and 24-33 are patentable over the cited references by virtue of at least this dependence. Thus, Applicants respectfully requests that the 35 U.S.C. § 103(a) rejections of 2-11, 13-22 and 24-33 be withdrawn.

Conclusion

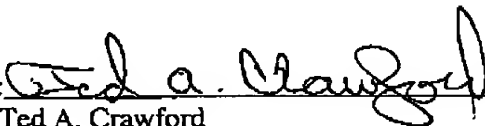
For at least the foregoing reasons, Applicants respectfully submit that claims 1-33, are in condition for allowance and such action is earnestly solicited. *The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.*

Respectfully submitted,
Robert M. Grow et al.

Date:

7/21/04

by:



Ted A. Crawford

Reg. No. 50,610

Patent Attorney for Assignee Intel Corporation

Intel Corporation
PO Box 5326
SC4-202
Santa Clara, CA 95056-5326
Tel. (503) 712-2799